

## The Integration of Character Values on Science Process of Students in SDN-8 Langkai, Palangkaraya City

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**Abstract** - The issue of education today requires a learning that is able to build the character values within the student. Many students succeed cognitively, but they are weak in character (moral). This fact might be caused by the current learning that is dominated by cognitive achievement and ignoring the character values. A strategy to build the character values is through the integration of character values into the science learning (science process). This study aimed to 1) describe the implementation of the science process, 2) describe the character values in the science process, and 3) describe the students' responses after received learning the science process with character values in SDN-8 Langkai, Palangkaraya City. Aiming to measure the achievement of the research indicators, the research was conducted using the principles of qualitative research. The result showed that the average score of the science process implementation in SDN 8 Langkai had a good category; the overall of character values showed the development category and the students showed a positive response. In sum, the integration of character values into the science process had achieved.

**Keywords:** Integration, Character Values, Science Processes.

### 1. Introduction

Education is a process of cultural internalization within a person and society to makes people and society become civilized (Ministry of National Education, 2011). The process of cultural internalization can be done through character building into a person, then the character will be actualized in the real life. Education is not only merely a means of transferring knowledge, but also a means of civilizing and disseminating the character values, aiming at a child is not only equipped with cognitive dimensions, but also affective and psychomotor dimensions.

Article no 3 of the regulation on National Education System of 2003 mentions that the function of national education is to develop the ability and build the dignified national character and civilization in the context of educating the lives of the nation, aiming at developing the potential of students to become faithful people to God, noble, healthy, knowledgeable, capable, creative, independent, and a democratic and responsible citizen. When looking at 5 of the 8 potentials according to the mandate of the law, they are closer to the character values.

Education should combine logic and sense. The logics are IQ, though, *fathonah* (smart), thinker, (visionary, intelligent, and open) and AQ, physical, trust, doer (Persistent, Hard Work, Discipline, Clean, and Responsible). Meanwhile, the senses are SQ, *olah hati* (spiritual and emotional development), *siddiq* (true), the believer (Honest, sincere, Religious, and Fair). Between logic

and sense will build relationships, 1) intrapersonal relationship is between IQ and SQ (*olah pikir (intellectual development)*, heart process), and 2) interpersonal relationships is between AQ and EQ.

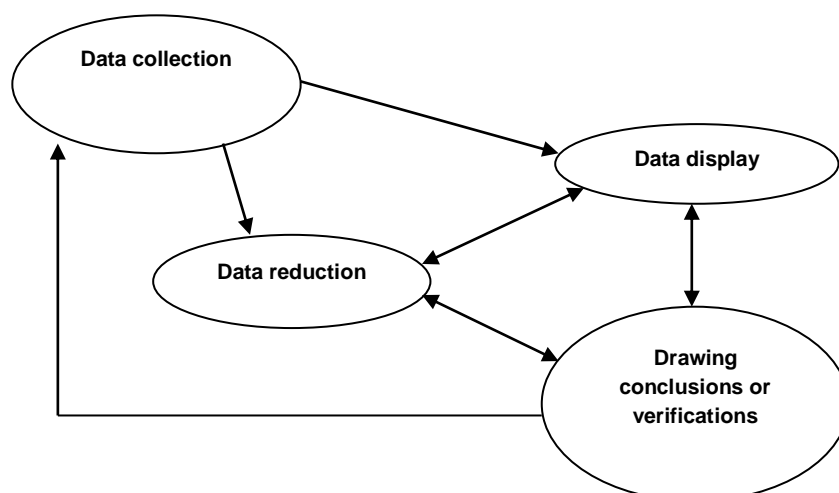
A strategy for character education in the schools is through the integration of the character values in the science learning process. The science learning process in the context of character development might use the Scientific approach as a concept of learning through the steps of the scientific method (science process). This is in line with the essence of science learning according to experts. The essence of science learning according to Carin and Sund (in Wisudawati 2014) divided into four elements. They are attitudes, processes, products, and applications. In the science learning process, these four elements are expected to emerge to make the students can experience the learning process as a whole and use the curiosity to understand the natural phenomena through the steps of the scientific method. The scientific attitudes are honest, carefulness, curiosity and critical logical thinking.

The results of a research conducted by Supramono and Sarmani (2014) that the application of learning media with Problem-Based Learning models, not only improve the scientific performance of students, but also showed the indicator values of characters of an honest of 75.6%, respect to others of 70.3%, cooperation of 78.5%, trusted of 73.3%, social care of 72.8%, and responsible of 77.7%. Generally, those obtained a good assessment category. In line with Supramono (2013), by applying the scientific-based Student Worksheet (LKS) showed the characters with achievement indicators of the discipline of 83.1%, cooperation of 79.5%, responsibility of 77.8% and classical learning outcomes of 85%.

The findings and literature review indicates the science (biology) learning which is designed according to the scientific (scientific) method is able to take the role in building the attitude and behavior of characters with good orientation.

## 2. Research Method

This research was qualitative methods through observing the character values in the science process for students in Grade 5 of SDN-8 Langkai, Palangkaraya City. In sum, the chart flow of research design is illustrated in figure 1.



**Figure 1. Data analysis Component of interactive model**

The study was conducted in grade 5, SDN-8 Langkai in the odd semester of the 2017/2019 academic year with anecdotal record model (notes made by a teacher when found a behavior related to the value). The data types in this study were; data on science process skills, data from observations of the character values of grade 5 students in SDN-8 Langkai Palangkaraya in the science learning process, and data of students' response.

Data collection procedures in this study were through observation and questionnaires.

- a. To obtain the data of students' scientific process skills through observation sheets by observation.
- b. To obtain the data of students' character values through sheets on character values by observation.
- c. To obtain the data of students' responses to the science process by integrating the character values through the questionnaire for students' responses.

Based on the research instruments, then the data analysis are:

- a. Data on the implementation of students' science process skills were analyzed using qualitative descriptive.
- b. Data on the implementation of character values were analyzed using qualitative descriptive.
- c. Data on the students' responses to the science process integrating with character values were analyzed using qualitative descriptive.

### **3. Findings and Discussion**

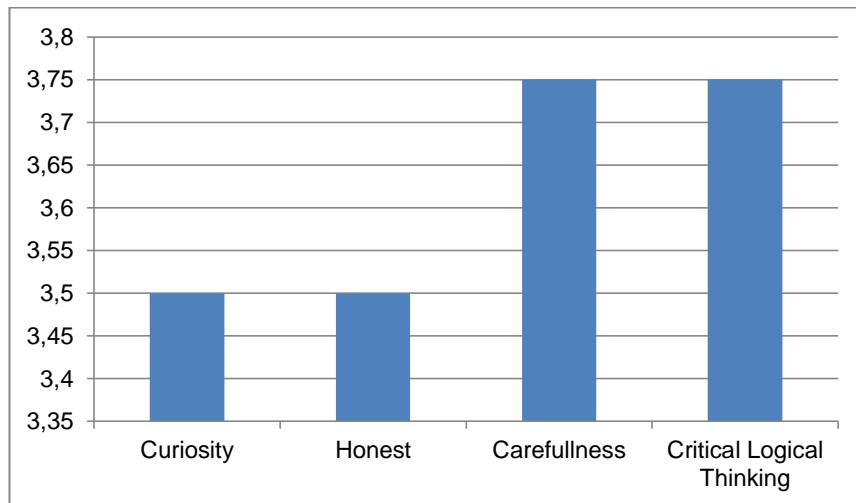
#### **3.1 The implementation of Science Process**

In sum, the science process skills of the students in SDN-8 Langkai are in a good category. The category is seen from the average score of implementation the science process skills, which is 3.75. The science process skills are dominant in communicating (3.75 with good categories), drawing conclusions (3.75 with good categories), formulating questions (3.50 with good categories), formulating the hypothesis answers (3.50 with good categories), and determining the material and tools (3.50 with good categories). Based on the result of observations conducted by 2 observers, the science process skills of students were in good categories.

This finding shows that the students' science process skills are in a good category, especially communication skills and drawing conclusions. The students' communication skills are involved in the activity of making observation tables, the carefulness of analyzing data and discussing the data from observation both writing (practicum reports) and verbal (the obtained data are discussed with group friends and classmates). In addition, in drawing conclusions, students can also connect the discussed topics with the obtained data, as well as they are able to discuss the data properly. And then, they are finally able to draw logical and precise conclusions. This process also always needs teacher guidance during the science process.

#### **3.2 The integration of character values**

The percentage of students' character values during the science learning process is presented in Figure 2.



**Figure 2. percentage of students' character values during the science learning process**

Criteria:

- 4 : Begin to entrenched
- 3 : Begin to development
- 2 : Begin to seen
- 1 : Have not seen yet

The character values of elementary school students; the curiosity are belonged to began to development (score 3.5), and honest are belonged to began to development (score 3.5). Meanwhile, the more dominant character value was the value of carefulness and critical logical thinking. The carefulness character are belonged to began to development (score 3.75) and critical logical thinking are belonged to began to development (score 3.75).

This fact showed that the character values can be integrated into the learning process of science through the steps of the scientific method. As the impact, it can build the scientific attitude itself, such as honest, carefulness, curious, and disciplined. When the character values along with the scientific attitude are continuously built in students through the learning process, especially the science process, and then the character values will be entrenched within the students. And, it can be applied to solving the problems in the middle of the community and applied in the community life.

### 3.3 The Students' responses

Data on students' response to the science process with the steps of science process skills were combined with character values from the students' response questionnaire. Questionnaires were given after the learning, which was filled by 34 students of grade 5 in SDN-8 Langkai Palangkaraya. The questions/statements in the questionnaire are made with the choices of "Yes" and "No" in order to make the students easily in determining the answers. Students' responses showed a positive to the integration of character values into the scientific process. The percentage of students' responses to the science learning process is presented in the following table:

**Table 1. The percentage of character values integration into the science learning process**

No.	Statements	YES	NO
1.	In my opinion, the observation activity is able to	94%	6%

No.	Statements	YES	NO
	build the curiosity, honesty, and carefulness.		
2.	I think, asking a question will make me be more carefulness.	88%	12%
3.	In my opinion, the skill of hypothesis builds the critical logical thinking.	92%	8%
4.	In my opinion, the skill to use tool and material builds the logical thinking and carefulness.	94%	6%
5.	In my opinion, the skill of communication (make a table, answer the discussion both oral and written) builds the curiosity, honest, carefulness and critical thinking.	100%	0%
6.	I think, drawing a conclusion build the logical thinking and honest.	100%	0%

#### 4. Conclusion

Based on the finding and discussion, concluded that:

1. The implementation of the students' science process in SDN-8 Langkai, Palangkaraya has an average score of 3.625 in the good category.
2. The average value of integration the character values are in the process begins to development. The characters are (a) curiosity with category begin to development (score 3.50), (b) honestly with category begin to development (score 3.50), carefulness with category begin to development (3.75) and (d) critical logical thinking with category begin to development (3.75).
3. The students' responses showed a positive response toward the integration of character values into learning through the scientific process.
4. The integration of character values into the science process is achieved.

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